OhioEPA
State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357 FAX: (937) 285-6404

Bob Taft, Governor
Jennette Bradley, Lt. Governor
Christopher Jones, Director

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January 16, 2004

Mr. William J. Taylor
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

RE: COMMENTS ON OSDF IMPP FOR WINTER MONTHS, REV B

Dear Mr. Taylor:

This letter provides Ohio Environmental Protection Agency comments on the On-Site Disposal Facility Impacted material Placement Plan for Winter Months, Revision B. Should you have any questions, please contact Tom Ontko or me.

Sincerely,

for Tom Ontko
Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric, U.S. EPA
Terry Hagen, Fluor Fernald
Mark Shupe, GeoTrans, Inc.
Michelle Cullerton, Tetra Tech EM Inc.
Ruth Vandergrift, ODH

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Ohio Environmental Protection Agency Comments on the
On-Site Disposal Facility
Impacted Material Placement Plan for Winter Months, Revision B

1) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.0B.1.a Pg #: 4 Line #: Code: c
Comment: The text states that Category 1 Crushed Concrete can be used as the 2-foot intervening layer over Category 2 grids. It is our understanding that crushed concrete was only being used to fill the voids within a Category 2 lift. Using crushed concrete to fill the voids of a Category 2 lift achieves the objectives of the Impacted Material Placement Plan. Section 8.3.1 of the (IMPP) specifies that the Category 1 material be of a granular material when it is available.
The use of granular material in the intervening layer defeats the intent of the grid approach which is to limit the lateral migration of leachate. Our objection is illustrated in the bottom half of sketch 3, in which the top, cross-hatched layer of crushed concrete is not enclosed by the 4-foot berms. The use of crushed concrete in the intervening layer also would result in a 10-foot vertical zone of more porous material. This is also shown in the bottom half of sketch 3.

2) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.0B.1.a,b,c,d Pg #: 4 Line #: Code: c, e
Comment: The text in these sections is unclear. All three items should be re-written for clarity. It would be easier to understand what was intended if Sketch 1 were relabelled to identify the items.
We also note that our version of Rev. A does not contain a "6.0B.1.b".

3) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.0B.2. Pg #: 4 Line #: Code: c
Comment: Provide requirements for the compaction of Category 1 crushed concrete.

4) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0A1.a. Pg.#: 5 Line #: Code: C
Comment: Significant and non-significant periods and amounts of precipitation should be clearly defined in the plan, and not left to arbitrary judgements in the field. This will help in consistent application of all winter placement activities.

5) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0A.2.a,b, and c Pg #: 6 Line #: Code: c
Comment: The text in all three sections is garbled and should be re-written.
We infer the following from the context:
a.) Category 1 crushed concrete can be placed during periods of insignificant precipitation regardless of temperature.
We agree that this is acceptable as long as the crushed concrete is not frozen and it consists of free-flowing material.
b.) Category 1 soil can be placed as long as it is not frozen, it is not raining or snowing

significantly, and the temperature of the impacted material is above 32 F.
This item does not address ambient temperature.
c.) We assume that the Category 2 referred to here is debris and is not soil-like. We infer that the intent is to place Category 2 debris and the associated Category 1 crushed concrete regardless of temperature as long as there is no significant precipitation.
We concur.

6) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0B.1.a. Pg #: 6 Line #: Code: c
Comment: This Section should be expanded to provide a list of materials which are inappropriate for winter disposal. In addition to frozen soil, ice, free-draining materials, etc., asbestos containing materials, thorium-230 contaminated materials and other materials for which extra efforts are made to control fugitive emissions with a water spray should be specifically excluded. In addition, this Plan has not addressed the placement of Category 2 soils (soils with maximum particle size larger than permitted for Cat 1 classification). Category 2 soils should be specifically excluded.

7) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0E.2 Pg #: 8 Line #: Code: c
Comment: This item addresses fugitive dust control measures. This section should be expanded to place a greater emphasis on those measures which are appropriate for use during freezing weather, including placing a slower speed limit on haul trucks, smooth-rolling landfill surfaces, use of crusting agents, etc.

8) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0E.13 Pg #: 9 Line #: Code: c
Comment: This item pertains to removing IM from stockpiles. This item should be expanded to specifically detail how the stockpiles will be managed to reduce the amount of frozen material. The use of insulating sacrificial material should be included along with procedures to insulate/cover the working faces of stockpiles during over night and during breaks. Policies such as requiring haul trucks to be unloaded before breaks should be developed.

9) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0E.15 Pg #: 9 Line #: Code: c
Comment: This allows construction of 4-foot berms. Justification that 4-foot berms will perform adequately and are constructable should be provided.

10) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0E.18 Pg.#: 9 Line #: Code: C
Comment: Please submit a demonstration which shows a temporary alternative cover can provide the same thermal protection as a 6 - 8 inch soil layer. Until such a demonstration

has occurred, placement may not occur when no Category 1 soil is available and freezing temperature is forecasted for more then 24-hours.

11) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: sketch 1 Code: c
Comment: The top half of this sketch (Pre-winter grid preparation w/ category 1 crushed concrete) illustrates 6.0B.1.d. Is the purpose of the crushed concrete to prevent the underlying Category 1 material from freezing? If this is the case, what steps are taken to verify that the freeze protection was effective?

12) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: sketch 1 Code: c
Comment: The bottom half (Winter Placement) of this sketch illustrates 6.0B.1.a. We have previously commented that the use of Category 1 crushed concrete in the intervening layers is not acceptable.

13) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: sketch 2 Code: c
Comment: The top sketch (Pre-winter grid preparation w/ Cat 1 soil sacrificial layer case 1) shows that an alternate temporary cover (blanket/plastic cover) can be used in place of a 6 to 8 inch layer of sacrificial Category 1 material. A demonstration should be made that the alternate provides equivalent insulation.

14) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: sketch 2 Pg #: Line #: footnote 1 Code: c
Comment: This footnote allows the construction of berms to be performed after the winter months. Berms should be constructed prior to waste placement

15) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: sketch 2, bottom half Code: c
Comment: Delete the reference to the use of crushed concrete for the intervening layer.

16) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: sketch 3, bottom half Code: c
Comment: The sketch shows how a layer of sacrificial Cat 1 soil will be used to protect a Cat 2 lift if the lift cannot be covered by crushed concrete by the end of the day. Presumably, the sacrificial lift will be removed and replaced with a crushed concrete lift. Our comment concerns the difficulty of scraping the frozen sacrificial soil off of a lift of Cat 2 that has been choked with crushed concrete. If the dozer blade catches a piece of steel, the Cat 2 lift would be disturbed. Since we have already commented that the use of crushed concrete in the intervening layer is not acceptable, we suggest that an acceptable alternative would be the use of a sacrificial Cat 1 layer on top of the Cat 1 intervening layer. When

work resumes, the frozen sacrificial layer would be removed followed by the compaction of the unfrozen Cat 1 intervening layer.

17) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Attachment B Pg #: Line #: Code: e
Comment: The font size in the checklist is too small to be satisfactorily faxed. Please increase the font size and make the check list two pages long.